

PARFENOVA, V., metodist

Methodological sections on physical education. Prof.-tekh.  
otr. 18 no.5:26 My '61. (MIRA 14:8)

1. TSentral'nyy uchebno-metodicheskiy kabinet.  
(Physical education and training)

PARFENOVA, V.P.; PORAFONTOV, N.V.; SHPINEL', V.S.

Study of the  $\text{Ce}^{144}$  decay by means of  $\beta$  --  $\gamma$  coincidence. Izv. AN  
SSSR. Ser. fiz. 21 no.12:1601-1606 D 57. (MIRA 11:2)  
(Cerium--Isotopes--Decay)

*Parfenova, V. P.*

12-12-7/15

AUTHORS: Parfenova, V. P. , Porafentov, M. V. , Shipinell, V. S.

TITLE: Investigation of the  $Ce^{144}$ -Decay According to the Method of E- $\gamma$ -Coincidence (Issledovaniye raspada  $Ce^{144}$  metodom E- $\gamma$ -sovpadeniy)

PERIODICAL: Izvestiya AN SSSR, Seriya Fizicheskaya, 1957, Vol. 21, Nr 12, pp. 1601 - 1606 (USSR)

ABSTRACT: The method of the E- $\gamma$ -coincidence was here employed for determining the E-transitions of small intensity. When this method is employed the partial-E-spectra occur more distinctly, as the E-particles of the  $Ce^{144}$ -transition in the original  $Pr^{144}$ -state, as well as the E-transitions of  $Pr^{144}$  which render the deciphering of the primary E-spectrum difficult are not recorded in such measurements. The measurements were performed by means of the apparatus, exactly described in references 6 and 7, consisting of a two-lens-E-spectrometer and a luminescence- $\gamma$ -spectrometer. But some modifications were made: the inner coils were abandoned, according to reference 8 a diaphragm was inserted in the domain of the ring-image, and the light-conductor of flexotrans was replaced by one of polystyrene. It is shown here that the E-spectra of the coincidence with three different ranges of the  $\gamma$ -spectrum are complicated. The E-spectrum ( $E_E = 310$  keV) drops out of these E-spectra. This due to the

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Investigation of the  $\text{Ce}^{144}$ -Decay According to the Method of  $\beta$ - $\gamma$ -Coincidence

transition to the original  $\text{Pr}^{144}$ -state (isomeric levels were not determined). On the basis of the observed  $\beta$ - $\gamma$ -cascades may be concluded that the  $\beta$ -transitions  $\beta_2$  ( $E_{\beta \text{ max}} = 230 \text{ keV}$ ) and  $\beta_3$  ( $E_{\beta \text{ max}} = 175 \text{ keV}$ ) excite the  $\text{Pr}^{144}$ -levels with an energy of 80 and 134 keV respectively. The  $\beta_1$ -spectrum ( $E_{\beta \text{ max}} = 130 \text{ keV}$ ) was determined according to the break of the straight line which occurs in all rectified diagrams. It is shown that the  $\beta$ -spectrum  $\beta_1$  ( $E_{\beta \text{ max}} = 130 \text{ keV}$ ) actually exists. The presence of a softer (than 175 keV)  $\beta$ -spectrum indicates the existence of an excited level of the nucleus  $\text{Pr}^{144}$  which lies higher than the 134 keV-level. In his work the author was assisted by Z. I. Anan'yeva, Diplomantka (diplomantka is a woman who works on a thesis). There are 6 figures, 5 tables, and 10 references, 4 of which are Slavic.

AVAILABLE: Library of Congress

Card 2/2

PARFENOVA, V.P.

Circular polarization of internal bremsstrahlung accompanying  
K-capture in  $\text{Fe}^{55}$ . Zhur. eksp. i teor. fiz. 38 no.1:56-59  
Jan '60. (MIRA 14:9)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.  
(Bremsstrahlung) (Electrons--Capture) (Iron--Isotopes)

S/030/61/000/005/012/012  
B105/B202

AUTHORS: Parfenova, V. P., Sorokin, A. A.

TITLE: Problems of nuclear spectroscopy

PERIODICAL: Akademiya nauk SSSR. Vestnik, no. 5, 1961, 119-120

TEXT: The authors give a report on the 11th vsesoyuznoye soveshchaniye po yadernoy spektroskopii (All-Union Conference on Nuclear Spectroscopy) which took place in Riga from January 25 to February 2, 1961. Since 1951 such annual conferences have been organized in the USSR in which the most important results are discussed and the directions of further research are outlined. The conference was attended by scientists from Moscow, Leningrad, Kiev, Riga, and other towns of the country. Great attention was paid to the theory of deformed nuclei. In recent years, a group of theoretical scientists headed by A. S. Davydov developed a model of the non-axial nuclei of the shape of a three-axial ellipsoid. L. K. Peker reported on the collective motions of deformed odd-odd nuclei. On the basis of the theory of the superfluid nucleus V. G. Solov'yev calculated the energies and characteristics of the levels of some nuclei. Decay

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Problems of nuclear spectroscopy

S/030/61/000/005/012/012  
B105/E202

schemes of radioactive nuclei were discussed which were obtained with the synchrocyclotron of the Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research) at Dubna. Collaborators of three institutes reported on the study of the Moessbauer effect: Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo universiteta (Scientific Research Institute of Nuclear Physics of Moscow University), Joint Institute of Nuclear Research, Institut atomnoy energii Akademii nauk SSSR (Institute of Atomic Energy of the Academy of Sciences USSR). A special meeting was devoted to the technique of nuclear spectrometry, where a number of new magnetic  $\beta$ -spectrometers of new design were described. Ya. A. Smorodinskiy gave a survey of the present state of studies of  $\beta$ -decay. Finally, it was stated that for a further development of the theory, the experiments must be more precise; this requires the development of more accurate methods.

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PARFENOVA, V.P.; SOROKIN, A.A.

Problems in nuclear spectroscopy. Vest.AN SSSR 31 no.5:119-120  
My '61. (MIRA 14:6)

(Nuclei, Atomic—Spectra)



ACCESSION NR: AP4019211

s/0056/64/046/002/0492/0496

AUTHORS: Parfenova, V. P.; Anishchenko, V. N.; Shpinel', V. S.

TITLE: Oriented Tb-160 nuclei in metallic terbium

SOURCE: Zhurnal' eksper. i teor. fiz, v. 46, no. 2, 1964, 492-496

TOPIC TAGS: terbium 160, aligned nucleus, oriented nucleus, polarized nucleus, angular distribution anisotropy, hyperfine splitting constant, nuclear specific heat, effective magnetic field

ABSTRACT: An attempt was made to orient the nuclei of metallic terbium to demonstrate the possibility of using the internal magnetic fields of terbium at low temperatures to polarize the nuclei. The Tb<sup>160</sup> nuclei were polarized in a polycrystalline sample of metallic terbium cooled to 0.03--0.04K by adiabatic demagnetization of potassium chrome alum. The anisotropy of the angular distribution of the 298 keV  $\gamma$  rays was measured and the hyperfine structure splitting

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ACCESSION NR: AP4019211

was found to be  $A = 0.054 \pm 0.007K$ . The results indicate that the hyperfine splitting in metallic terbium is sufficiently large and can be used to orient the nuclei at low temperatures, but the value of the hyperfine splitting turns out to be lower than expected. Whereas the measurements yield approximately  $1.4 \times 10^6$  Oe for the effective magnetic field, the value obtained by measuring the nuclear specific heat is  $5.7 \times 10^6$  Oe. The reason for the discrepancy is still unknown. "In conclusion the authors thank corresponding member N. Ye. Alekseyevskiy of AN SSSR for useful advice and for a fruitful discussion, V. Sokolov for the magnetic measurements of the terbium sample, to Amin-Zaki El-Bahai, who participated in the initial stage of the work, and also to the members of the MGU Low-Temperature Physics Department, headed by corresponding member A. I. Shal'nikov of AN SSSR, for supplying the liquid helium." Orig. art. has: 3 figures and 2 formulas.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo

Cord 2/43

ACCESSION NR: AP4019211

universiteta (Nuclear Physics Institute, Moscow State University)

SUBMITTED: 26Jul63

DATE ACQ: 27Mar64

ENCL: 01

SUB CODE: PH

NO REF SOV: 005

OTHER: 006

Cord 3/13

I 21807-66 EFT(m)/EWP(t) DIAAP/IJP(c) JD/HW/JG

ACC NR: AP6012185

SOURCE CODE: UR/0386/66/003/008/0318/0321

AUTHOR: Alekseyevskiy, N. Ye.; Anisachenko, V. N.; Yezinkyan, A. L.; Parfenova, Y. Pr.; Shpinil', V. S. 37 E

ORG: Scientific Research Institute of Nuclear Physics of Moscow State University  
im. M. V. Lomonosov (Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo  
gosudarstvennogo universiteta)

TITLE: Effective magnetic field at the  $\text{Co}^{60}$  nucleus in the  $\text{CoPd}$  alloy 19 21 21

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu.  
Prilozheniye, v. 3, no. 8, 1966, 318-320

TOPIC TAGS: cobalt alloy, palladium containing alloy, Mossbauer effect, magnetic  
field measurement

ABSTRACT: In view of the fact that Mossbauer-effect measurements of the effective  
field  $H_{\text{eff}}$  give unambiguous results only if  $\text{Fe}^{57}$  is used, the authors measured  
 $H_{\text{eff}}$  at the  $\text{Co}^{60}$  nucleus in an alloy of 0.3 at. % Co with Pd, by determining the  
anisotropy of the  $\gamma$  radiation of oriented  $\text{Co}^{60}$  nuclei. The use of radioactive  
 $\text{Co}^{60}$  has made it possible to carry out the measurements at rather low Co concentra-  
tions. The procedure used was similar to that described earlier (ZhETF v. 46, 493,  
1964). The cooling agent was a block of potassium chrome alum. The investigated

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ACC NR: AP6012185

sample, constituting a disc 3 mm in diameter and 0.2 mm thick, was soldered to the end of the cold finger, which was pressed into the salt. The intensity of 1.33- and 1.17-Mev  $\gamma$  quanta from Co was measured at angles  $0^\circ$  and  $90^\circ$  to the external orienting field ( $H_{ext} = 5.7$  koe). The measurements have shown that thermal equilibrium is established between the cooling salt and the sample at  $T \sim 0.03K$ , and the values of  $H_{eff}$  obtained in both cases agree with the published data. The effective field at the  $Co^{59}$  nucleus in the CoPd alloy was measured under the same conditions (the same salt and the same cold finger), and a value  $H_{eff} = (2.6 \pm 0.2) \times 10^5$  oe was obtained. This value of  $H_{eff}$  exceeds the field in the metallic Co ( $H_{eff} = 2.150 \times 10^5$  oe). The result shows that the Co ion behaves somewhat differently than the Fe ion when alloyed with Pd, where the field at the  $Fe^{57}$  nucleus is lower at smaller concentrations of Fe than in pure Fe. The large value of  $H_{eff}$  is apparently connected with the large local moment at the impurity ferromagnetic Co atom. On the other hand, the increase of  $H_{eff}$  at the Co nucleus in the investigated alloy can be due to the change in the contribution of the spin density due to the conduction s-electrons, compared with metallic cobalt. The dependence of  $H_{eff}$  on the Co concentration is now under investigation.

SUB CODE: 20/

SUBM DATE: 25Feb66/

ORIG REF: 001/

OTH REF: 006

Card 2/2

PB

GAVRIKOV, N.A.; LUK\*YANOV, V.S.; PARFENOVA, V.P. (Armavir)

Clinical and roentgenological diagnosis of internal biliary  
fistula. Klin.med. no.7:46-50 '61. (MIRA 14:8)

1. Iz terapevticheskogo otdeleniya No.1 (zav. N.A. Gavrikov)  
Armavirskoy mezhrayonnoy bol'nitsy (glavnyy vrach N.I. Sinchugov).  
(FISTULA) (BILIARY TRACT—RADIOGRAPHY)

25389

S/080/61/034/002/009/025  
A057/A129

5.1310 (120X.1277 2319)

AUTHORS: Rotinyan, A.L., Parfenova, V.S., Puchkova, R.A., Semikozov, G.S.

TITLE: Electrochemical method of purifying an electrolyte from impurities under conditions affected by ultrasonic vibrations

PERIODICAL: Zhurnal Prikladnoy Khimii, v 34, no 2, 1961, 339-344

TEXT: The effect of ultrasonic waves on the electrochemical purification of electrolytes was investigated and a scheme for the removal of iron, copper and cobalt impurities in a nickel electrolyte was presented. It is known that ultrasonic fields decrease the concentration polarization. The present authors demonstrated in previous papers that the intensity of an electrochemical purification is controlled by the diffusion current of the impurity. Thus a favorable effect of ultrasonic waves on electrochemical purification was to be expected. Informational experiments

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S/080/61/034/002/009/025

A057/A129

Electrochemical method of purifying ...

carried out with nickel chloride and sulfate solutions containing copper impurities approved this assumption, demonstrating that current density of copper deposition increases 10 times if an ultrasonic field is applied in electrolysis. Electrochemical experiments were carried out to purify nickel chloride electrolyte from copper impurities. The multiplicity factor of purification was expressed by  $c_{i, \text{out}} / c_{i, \text{in}} = 1 + K_{gl} S / Q$  (1), ( $c_{i, \text{in}}$  = concentration of the impurity in the initial electrolyte,  $c_{i, \text{out}}$  = concentration of the impurity in the electrolyte in the tank and the outflowing electrolyte,  $K_{gl}$  = constant of the convective diffusion rate of the impurity,  $S$  = size of the cathode surface in the purification tank,  $Q$  = flowing rate of the electrolyte). Plexiglass tanks (313 x 79 x 76 mm), magnetostriction transformers of the type ПМ-1.5 (PM-1.5) with 4.5 kw capacity and 23.7 ke/s frequency were used in the experiments, as well as pure nickel anodes of the М-1 (N-1) type under following conditions: initial concentration of nickel chloride 122±2 g/l, 1,000±70 mg Cu per liter, temperature 40°C and pH 1-2. In the first series of experiments the effect of the flow rate on the purification multiplicity factor was

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Electrochemical method of purifying ...

studied and it was observed (Fig 3) that the latter decreases with increasing flow rate. Further experiments showed that the purification multiplicity factor is neither affected by the cathodic current density nor by the initial copper concentration. Constants of convective diffusion rate were calculated (Tab. ) and an almost constant  $K_{ci}$  value of about  $0.26 \cdot 10^{-2}$  cm/sec was observed, i.e., 24 times greater<sup>81</sup> than the value for corresponding experiments without ultrasonic vibrations. The present authors remark that the degree of intensification obtained is not the maximum, thus further improvements could be realized with optimum conditions. The following scheme suitable for sulfate-chloride as well as pure chloride electrolytes with medium or high nickel content is suggested: The analyte containing Fe, Cu, and Co impurities is purified from Fe in the usual manner (oxidation by air and precipitation of Fe with nickel carbonate and further repulping of the iron). After filtration the solution is transferred into the tank for the first electrochemical purification with ultrasonic vibration. Anodes are soluble and can be manufactured from cuts or defective cathode nickel. Electrolysis is carried

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Electrochemical method of purifying ...

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S/080/61/034/002/009/025  
A057/A129

out at current densities for copper and not nickel deposition, and at a voltage of maximum 1.5 v. All precious metals will be deposited together with copper and are processed in the copper-electrolysis plant. Then the electrolyte is transferred from the first tank to the second which works also with ultrasonic waves. Here graphite anodes were used and a copper-nickel alloy is deposited on the cathode. This alloy containing about 0.5% Ni is transferred to further treatments. Chlorine is formed on the anode and oxidizes  $\text{Co}^{2+}$ . Adding nickel carbonate, cobalt hydroxide is precipitated. This procedure of cobalt extraction is used in the Kombinat "Yuzhuralnikel" (Combine "Yuzhuralnikel") (Ref 13: A.L. Rotinyan, Izvet. met., 7, 23 (1958) with the difference that in the present work in the second tank copper is separated. Concluding the present authors thank N.L. Amatuni for the help in the present work. There are 6 figures, 1 table and 14 Soviet-bloc references.

ASSOCIATION: Kafedra elektrokhemii Leningradskogo tekhnologicheskogo instituta imeni Lensovet (Department for Electrochemistry of the Leningrad Technological Institute imeni Lensovet)

Card 4/6

ROTINYAN, A.L.; PARFENOVA, V.S.; PUCHKOVA, R.A.; SEMIKOZOV, G.S.

Electrochemical method for removing impurities from an electrolyte subjected to the action of ultrasonic vibrations. Zhur. prikl. khim. 34 no.2:339-344 F '61. (MIRA 14:2)

1. Kafedra elektrokhemii Leningradskogo tekhnologicheskogo instituta imeni Lensoveta.

(Ultrasonic waves)

(Electrolytes)

1. PARFENOVA, YE.
2. USSR 600
4. Polynov, Boris Borisovich, 1877-
7. "Geographical works." B. B. Polynov, Reivewed by YE. Parfenova, Pochvovedenie, No. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

PARFENOVA, Ye. A.

Mbr., Ukr. Physico-Tech. Inst., Khar'kov, -1939-.

"Influence of the Magnetic Field on the Electric  
Resistance of Zinc and Cadmium Monocrystals at Low  
Temperatures: I 'Transverse Effect,' Zhur. Eksper. i

Teoret. Fiz., 9, No. 10, 1939;

II. Longitudinal Effect," ibid.

CHAYKOVSKAYA, M.Ya.; YELEAZAROVA, M.P.; ZAYRAT'YANTS, V.B.; KARLASHETKO,  
N.I.; PARFENOVA, Ye.G.

Use of ACTH under clinic and experimental conditions following  
the action of ionizing radiation on the body. Med.rad. no.11:  
20-26 '61. (MIRA 14:11)

1. Iz radiologicheskogo otdela (zav. - prof. A.V. Kozlova)  
Gosudarstvennogo nauchno-issledovatel'skogo rentgeno-radio-  
logicheskogo instituta Ministerstva zdravookhraneniya RSFSR.  
(RADIATION PROTECTION) (ACTH)

SVIRIDOV, N.K.; PARFENOVA, Ye.G. (Moskva)

Some protective and restorative reactions of the body in radiation  
sickness. Med.rad. 7 no.7:89-90 J1 '62. (MIRA 15:11)  
(RADIATION SICKNESS) (RETICULO-ENDOTHELIAL SYSTEM)  
(BLOOD-CIRCULATION) (HEMPOIETIC SYSTEM)

27.2400

40662

S/241/62/007/007/005/006  
1015/1215

**AUTHORS:** Sviridov, N. K. and Parfenova, Ye. G. (Moscow)

**TITLE:** Some defense and regeneration reactions of the organism during radiation sickness

**PERIODICAL:** Meditsinskaya radiologiya, v. 7, no. 7, 1962, 89-90

**TEXT:** Acute radiation sickness was induced in 29 dogs by irradiation with 600 r from a PYM-3 (RUM-3) unit. Chemotherapy in the form of a combination of biomycine, levomycetine, bathyl alcohol, leukogen and kaferid was applied to 14 dogs. The animals were observed for 2-3 months. The survival rate was greater, the course of radiation sickness milder, the regeneration of cells in bone marrow and peripheral blood more rapid, and the reticulo-endothelial system more active, in the animals which were subjected to chemotherapy than in those which were not treated. The reaction of the reticuloendothelial system reflected the non-specific stimulation of active mesenchyme during therapy.

X

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PARFENOVA, Ye. I.

PARFENOVA, Ye. I.; YARILOVA, Ye. A.

Synthesis of allophanoids in laboratories under normal temperature  
and pressure [with summary in English], Pochvovedenie no. 4: 80-85  
Ap '57. (MIRA 10:7)

1. Pochvennyy institut im. V.V. Dokuchayeva Akademii nauk SSSR.  
(Allophane) (Soil colloids)

PARFENOVA, YE. I.

PARFENOVA, Ye. I.

B.B. Polynov's basic ideas on the geochemistry of landscape.  
Pochvovedenie no. 9: 33-36 S '57. (MIRA 10:12)

1. Pochvennyy institut im. V.V. Dokuchayeva AN SSSR.  
(Geochemistry) (Polynov, Boris Borisovich, 1879-1952)

PARFENOVA, Ye. A.

YARILOVA, Ye. A.; PARFENOVA, Ye. I.

Newly formed clay minerals in soils [with summary in English].  
Pochvovedenie no. 9:37-48 S '57. (MIRA 10:12)

1. Pochvennyy institut im. V.V. Dokuchayeva AN SSSR.  
(Minerals in soil)

PARFENOVA, Ye. I.

23985 PARFENOVA, Ye. I. Nekotoryye vtorichnyye mineral'nyye obrazovaniya v rasteniyakh i pochve. Problemy sov. pochvovedeniya, SB. 15, 1949, S. 71-79. Bibliogr: 10 Nazv.

SO: Letopis, No. 32, 1949.

PARFENOVA, Ye.I.; YARILOVA, Ye.A.

Formation of secondary minerals in soils and plants in connection  
with the migration of elements [with German summary in insert].  
Pechvevedenie no.4:38-42 Ap '56. (MIRA 9:9)

1.Pechvennyy institut imeni V.V.Dekuchayeva Akademii nauk SSSR.  
(Minerals in soil) (Minerals in plants)

PARFENOVA, Yelena Ivanovna; YARILOVA, Yekaterina Arsen'yevna;  
ANTIPOV-KARATAYEV, I.N., akademik, otv. red.; PAVLOV, A.N.,  
red. izd-va; RYLINA, Yu.V., tekhn. red.

[Mineralogical investigations in soil science] Mineralogicheskie  
issledovaniia v pochvovedenii. Moskva, Izd-vo Akad. nauk SSSR,  
1962. 203 p. (MIRA 15:7)

1. Akademiya nauk Tadzhikskoy SSR (for Antipov-Karatayev).  
(Minerals in soil)

PARFENOVA, Ye.I.; YARILOVA, Ye.A.

Tasks and methods of the microscopic analysis of soil minerals.  
Pochvovedenie no.12:28-35 D '58. (MIRA 12:1)

1. Pochvennyy institut imeni V.V. Dokuchayeva AN SSSR.  
(Minerals in soil)

15-57-2-1722  
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 2,  
p 83 (USSR)

AUTHOR: Parfenova, Ye. I.

TITLE: A Study of the Minerals in Podsol Soils in Relation  
to Their Origin (Issledovaniye mineralov podzolistykh  
pochv v svyazi s ikh genezisom)

PERIODICAL: V sb: Kora vyvetrivaniya. Nr 2, Moscow, AN SSSR, 1956,  
pp 31-44

ABSTRACT: To explain the origin and composition of the minerals  
in podsol soils and illuvial horizons of podsol soils,  
a mineral study was made on the turfy section at  
Ostankino in the Moscow Oblast'. The following sub-  
divided horizons were distinguished: A<sub>1</sub> sod, A<sub>1</sub>A<sub>2</sub>,  
A<sub>2</sub>B, B, BC, and C, ranging from 0 to 185 cm. The  
quantity of particles <0.001 mm decreases downward in  
the section from 12.99 to 2.94 percent in horizon A<sub>2</sub>

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15-57-2-1722

A Study of the Minerals in Podsol Soils (Cont.)

and then increases to 21.92 percent in horizon C. The mineral composition of the section (in percent) is as follows: fragments of granite, up to 3.43 (BC); fragments of amphibole rocks, up to 4.92 (C); ferruginous fragments and aggregates, 0.03 to 0.81; sand-clay aggregates (coarse fraction), up to 11.29 (A<sub>1</sub>); heavy minerals, 0.76 (BC), 2.74 (A<sub>2</sub>); mica, 0.93 (B), 4.62 (A<sub>2</sub>); quartz, 40.68 (A<sub>1</sub>), 63.74 (A<sub>2</sub>B); feldspar, 10.96 (A<sub>2</sub>B), 27.37 (A<sub>1</sub>); hydromica, 0.46 (A<sub>2</sub>B), 8.25 (C); clay minerals (ferribidellite type) of illuvial horizon, up to 29.69 (B); indeterminate clay aggregates, up to 6.63 (A<sub>1</sub>); organo-mineral aggregate, up to 20.13 (A<sub>1</sub> sod); "phytolitharia" up to 3.30 (A<sub>1</sub> sod); skeletons of diatom algae, up to 0.29 (A<sub>1</sub>); leaves with ferruginous and transparent coatings and coal in horizon A<sub>1</sub> sod, with respective percentages of 1.21, 0.43, and 0.41; indeterminate opaque minerals from single grains (A<sub>2</sub>B) to 2.90 (A<sub>1</sub> sod). The chemical composition of the clay minerals of beidellite type (in percent, roasted material) is humus 1.62, other 7.60, SiO<sub>2</sub> 53.02, Al<sub>2</sub>O<sub>3</sub> 31.51, Fe<sub>2</sub>O<sub>3</sub> 92.4 (sic), P<sub>2</sub>O<sub>5</sub> 0.12, CaO 1.50, MgO 2.29, K<sub>2</sub>O

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PARFENOVA, Ye.I.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001239220010-1"

Vop. geog. vol. 33:63-98 '53.

(MLRA 7:3)

(Polynov, Boris Borisovich, 1877-1952) (Physical geography)

PARFEROVA, Ye.I.; YARILOVA, Ye.A.

Lessivage and podzolization. Pochvovedenie no.9:1-15 S '60.  
(MIRA 13:9)

1. Pochvennyy institut im. V.V. Dokuchayeva Akademii nauk SSSR.  
(Podzol)

YARILOVA, Ye.A., PARFENOVA, Ye.I.

Clay minerals of soil colloids. Koll. zhur. 22 no.2:237-242 Mr-Apr  
'60. (MIRA 13:8)

1. Pochvennyy institut AN SSSR, Moskva  
(Colloids) (Clay)

YARILOVA, Ye.A.; PARFENOVA, Ye.I.

Studies on characteristics of clay minerals in soil colloids [with  
summary in English]. Pochvededenie no.2:75-79 F '59.

(MIRA 12:3)

1. Pochvennyy institut imeni V.V. Dokuchayeva AN SSSR.  
(Soil colloids) (Minerals in soil)

PARFENOVA, Ye. I.

Mbr., Laboratory of Soil Mineralogy, Soil Institute,

Acad. Sci. -1947-.

"History and Contemporary Status of Soil Science

(For the 70th Anniversary of the Birth of Academician

B. B. Polyhov)," Pochmrovedeniye, No. 2, 1948.

"Secondary Quartz in the Podzolic Level," Dok. AN, 58,

No. 8, 1947.

PARFENOVA, Yel

✓ Conversion of biotite to opal in soils of northern Karelia.  
 E. I. Parfenova. *Zapiski Vsesoyuz. Mineral. Obshchestva*  
 85-685-6(1988). Colorless isotropic scaly formations of  
 opal (with  $n = 1.468$ ) are typical pseudomorphs of  $\text{SiO}_2$   
 hydrogel after biotite. The preservation of the character-  
 istic sagenitic rutile inclusions in the original mica crystals  
 is highly remarkable in such pseudomorphs. The origin  
 from biotite (with  $n_y = 1.005$  to  $1.009$ ;  $n_z = 1.001$ ) of  
 dark olive-green color is described in all the transitions ob-  
 served in the weathering products of the granitic mother  
 rock. The  $n_z$  of the mica are continuously decreased, the  
 color bleached by removal of Fe as the color pigment. The  
 biochem. role of fungus in these conversions is demonstrated  
 by micrographs of these organisms on the micas in the soils.  
 W. Bleck

PARFENOVA, Ye.I.

B.B.Polynov as the founder of the theory of the geochemistry of landforms; his 85th birthday. Pochvovedenie no.2:14-24 F '63.  
(MIRA 16:3)

1. Pochvennyy institut imeni V.V.Dokuchayeva.  
(Landforms) (Geochemistry)

P A R F E N O V A, Ye. I.

*copy*  
 The formation of secondary minerals in soils and plants in connection with the migration of elements. E. I. Parfenova and B. A. Yamilova (V. V. Dokuchaev Inst. Soil Sci., Moscow). *Pochvenovedenie* 1956, No. 4, 28-32. Accepting Polynov's views (C.A. 42, 7470b) that the migration of elements through the medium of plants increases as one moves from the arid to the humid regions, P. and Ya. investigated chernozem of the meadow steppe on loess loam parent material. This soil contains 40-50% clay minerals of the beidelite type. The other 50% consists of quartz, feldspars, carbonates, and a small quantity of mica, accessory, and other minerals. Microscopic exams. of decomposing plants grown on this soil show new formations, of which the most prominent are quartz and Ca oxalate. In a series of 8 photographs, the following minerals are shown: phytolitharia from the leaves of feather grass; Ca oxalate crystals from oak leaves; microcrystals of calcite in chernozem; macrocrystals of calcite in chernozem; aragonite in chernozem, and conversion of phytolitharia in chalcedony. In another set of 8 photographs, the following minerals are shown: secondary quartz pptd. from soln.; incrustations of mobile beidelite in a gray forest soil, phytolitharia in pine needles; quartz coatings on the walls of the cells of a fern leaf; crystals of Ca oxalate in birch leaves; secondary quartz in a podzolized soil. Grain plants mobilize annually on 1 ha. of the steppe the following quantities (kg./ha.) of constituents: SiO<sub>2</sub>, 420; Al<sub>2</sub>O<sub>3</sub>, 0; Fe<sub>2</sub>O<sub>3</sub>, 0; MnO, 1; CaO, 65; MgO, 17; K<sub>2</sub>O, 74; P<sub>2</sub>O<sub>5</sub>, 19. The total is 620 kg./ha. When the plants decompose, these elements vary in their behavior. Thus, K and P are picked up quickly by a new generation of plants. Part of these, especially the K, enters into the compn. of the secondary minerals (sericite). *Yo*



PIR FENOVA, E. I.; YARILOVA, E. A.  
and clay minerals). The Ca oxalate disappears in the soil, but Ca forms microcrystals of calcite. Larger crystals of calcite form in the larger pores. Besides, aragonite in the form of spherulite and dolomite also form.  $\text{SiO}_2$  enters the soil in the form of  $\text{SiO}_2$  coatings on the walls of the cells and phytolitharia. Some of the  $\text{SiO}_2$  crystallizes into secondary quartz, passing through the stage of chalcedony. Some of the quartz, in combination with other elements, enters into the compn. of newly formed clay minerals. The chem. compn. of the colloid fraction of Chernozem ( $<0.2 \mu$ ) shows a mol. ratio of  $\text{SiO}_2/\text{Al}_2\text{O}_3$  close to 3 all through the profile. All the data, including thermal, optical, and x-ray analyses, indicate that the clay mineral of Chernozem consists of beidellite with appreciable quantities of Fe. Beidellite found in degraded Chernozem has the following compn.: loss on ignition 14.94,  $\text{SiO}_2$  56.03,  $\text{Al}_2\text{O}_3$  21.79,  $\text{Fe}_2\text{O}_3$  12.15,  $\text{MnO}$  0.05, CaO trace, Mg 3.58,  $\text{K}_2\text{O}$  1.02%,  $\text{SiO}_2/\text{Al}_2\text{O}_3$  3.8. Pine trees in a podzolized soil work over annually the following quantities (kg./ha.) of constituents:  $\text{SiO}_2$  16,  $\text{R}_2\text{O}_3$  10,  $\text{MnO}$  5, CaO 30,  $\text{MgO}$  5,  $\text{K}_2\text{O}$  10,  $\text{P}_2\text{O}_5$  8, SO<sub>2</sub> 8, a total of 91. The  $\text{SiO}_2$  is converted into secondary quartz, but some goes in sol. Beidellite is found in the B horizon of pod-podzolized soils, making up 20% of all the minerals. In the northern parts of the zone of podzolization, no secondary quartz was found. Primary quartz and amorphous  $\text{SiO}_2$  are encountered in the podzolized horizon as a result of the decomposition of the Al silicates. Platelets of opal, formed from biotite, were found. Large quantities of  $\text{Al}_2\text{O}_3$  and  $\text{Fe}_2\text{O}_3$  are assoc. in the northern regions with arg. complexes. Iron-ore-like formations are also encountered in this region.  
I. S. Joffe

PARFENOVA, Ye.I.

Transition of biotite to opal in northern Karelian soils.  
Zap.Vses.min.ob-va 85 no.4:585-586 '56.

(MLRA 10:2)

1. Pochvennyy institut imeni V.V. Dokuchayeva Akademii nauk SSSR.  
(Biotite) (Karelia--Opals)

PARFENOVA, Ye.I.

Study of podzolic soil minerals in relation to their origin.

Kora vyvetr. no.2:31-44 '56.

(MLRA 9:8)

(Podsol) (Mineralogical chemistry)

Country : USSR

Category: Soil Science. Physical and Chemical Properties of Soil.

Abs Jour: RZhBiol., No 18, 1958, No 62055

Author : ~~Parfenova, Ye. I.~~

Inst : All-Union Mineralogical Society.

Title : Conversion of Biotite into Opal in Soils of Northern Karelia.

Orig Pub: Zap. Vses. mineralog. o-va, 1956, 85, No 4, 585-586

Abstract: The phenomenon of the conversion of biotite into opal was detected in podzolic soils of Karlia. In granites underlying these soils biotite had an olive green color and a refraction index of  $n_{\lambda} 1.665 - 1.669$ ;  $n_{\lambda} 1.610$ ; specific gravity  $> 2.75$ . Biotite faded in the soil, its specific gravity diminished

Card : 1/2

PARFENOV, Ye.N.; RYB'YAKOVA, Ye.V.

Use of erythromycin in nonspecific inflammatory diseases  
of the urogenital system. Urologiya no.4:29-31 '63.

(MIRA 17:10)

1. Iz - toroy polikliniki (nauchnyy rukovoditel' - prof.  
A.Ya. Abramyan, Chetvertogo glavnogo upravleniya pri  
Ministerstve zdoravookhraneniya SSSR.

PARFENOVA, Ye.N. (Moskva)

Method of catheterization and washing of the urinary bladder.  
Med.sestra 21 no.12:31-36 D '62. (MIRA 16:4)  
(CATHETERS) (BLADDER)

GORYACHEVA, L. A.; PARFENOVA, Ye. S. (Gor'kiy)

Effectiveness of lipotropic preparations in the treatment of  
toxic hepatitis. Gig. truda i prof. zab. 5 no.7:37-41 J1 '61.  
(MIRA 15:7)

1. Gor'kovskiy nauchno-issledovatel'skiy institut gigiyeny truda  
i professional'nykh zabolevaniy.

(LIPIDS) (LIVER—DISEASES)

IVANOVA, M.N.; FEDOROV, V.V.; PARFENOVA, Z.S.

Development of differentiated norms of amortization cost for technological equipment in the cotton industry. Nauka, Moscow. Izudy TSNIIEKHI '60 [publ. '62]:285-319.

(MIRA 18.1)



PARFENOVA, Z.S.; Prinimali uchastiye; LIPSKAYA, T.D.; SHAPIRO, A.B.

Indices of labor input in the finishing of bleached cotton  
fabrics. Nauch.-iss. trudy TSNIKHBI za 1962 g.:397-424 '64.  
(MIRA 18:8)

GAVRILOV, K.I., dotsent; PARFENOVS, M.L., assistant; GROMOVA, L.I., assistant

Search for new medicinal plants in the Stavropol flora yielding  
the antibiotics phytoncides. Uch. zap. Stavr. gos. med. inst.  
12:159-160 '63. (MIRA 17:9)

1. Kafedra obshchey biologii (zav. kafedroy dotsent K.I. Gavrilov)  
Stavropol'skogo gosudarstvennogo meditsinskogo instituta.



FARFENTEVA, N.I.; FRENKEL', R.Sh.; POPOV, A.V.; PUZ'MINA, I.A.

Development of the method for bonding insulation rubber to  
copper. Kauch. i rez. 24 no.12:48-49 '65. (MIRA 14:12)

1. Volzhskiy filial Nauchno-issledovatel'skogo instituta rezinovoy  
promyshlennosti.

VASIL'CHENKO, F.A.; PARFENTSEV, E.A.

"Reference manual on highway landscaping". P.I. Sarsatskikh,  
V.I. Obolensk'i. Reviewed by F.A. Vasil'chenko, E.A. Perfen-  
tsev. Avt.dor. 18 no.2:31-32 Mr-Ap '55. (MLRA 8:6)  
(Roadside improvement) (Sarsatskikh, P.I.) (Obolenskii, V.I.)

PARFENTSOV, I.I., master

Method for checking the insulation t the shaft terminals of  
the generators of the Novosibirsk Hydroelectric Power Station.  
Elek. sta. 35 no. 4:81 Ap '64. (MIRA 17:7)

PARFENTJEV, A.

SA

B1 64  
E

115. On a glowing discharge tube with cold cathode and control grid. A. PARFENTJEV. *J. Techn. Phys. U.S.S.R.*, 9, 3, pp. 198-201, 1939. *In Russian.*—A serious drawback in the operation of thyratrons is the heated cathode requiring a special heating supply. The valve of the author's design possesses a cold cathode and a grid controlling the discharge voltages. The valve is filled with Ne of 4 mm. Hg. pressure. The no-load V/A characteristic and frequency characteristic were taken, and the influence of gas pressure established. F. B. K.

PARFENT'YEV, A.A.; LUPCHIN, TS.N.

Some problems in the technology of the manufacture of miniature  
electric motors. Av.prom. 26 no. 3-7 Ag '57. (MIRA 15:4)  
(Electric motors--Design and construction)



PARFENT'YEV, A.

Sound - Recording and Reproducing

Sound track. Kinomekhnika No. 1 (1952)

9. Monthly List of Russian Accessions, Library of Congress, August 1952. ~~1953~~, Uncl.

PARFENT'YEV, A., kandidat tekhnicheskikh nauk, laureat Stalinskoy premii.

Telecinematography. Tekh.mol. 22 no.9:7-10 S '54. (MIRA 7:9)  
(Motion pictures) (Television)

PARFENT'YEV, A., kandidat tekhnicheskikh nauk, laureat Stalinskoy premii.

Motion-picture theater on Wagram Avenue. Tekh.mol.24 no.1/2:41-43  
Ja-P '56. (Paris--Motion-picture projection) (MIRA 9:7)

PARFENT'YEV, A. I.

"Deviations from Hehl's Law in Several Forms of Glowing Explosions," Dokl. AN  
SSSR, 26, No.8, 1940

All-Union Sci. Res. Cinephotography Inst.

PARIENT'YEV, A.I.

Parient'yev, A.I. "On the problem of the relation between forms of  
amplitude rating and transmission range," report 79, Trudy NIKFI  
(Nauch.-issled. kino-foto-in-t), Issue 7, 1947, (column title: 1944),  
p. 162-66

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

PARFENT'YEV A. I.

PA 49786

USSR/Physics

Oct 1947

Recorders, Sound

Sound Waves - Photography

"Basic Characteristics of Lateral Recording of Sound," A. I. Parfent'yev, 14 pp

"Zhur Tekh Fiz" Vol XVII, No 10, 1947

Discusses characteristics of basic parameters which characterize lateral photographic recording. Gives peculiarities which connect performance, coefficient of modulation, and the dynamic range with the clear and blackened parts of the phonogram. Establishes mathematic relationships, important between the degree of performance, noise level, clarity, and frequency. Submitted, 14 Jan 1947.

49786

PARFENT'YEV, A. I.

PA 32/49T53

USSR/Engineering  
Sound Tracks, Multiple  
Recording Systems

Sep 48

"Study of Multiple-Track Sound Recording," A. I.  
Parfent'yev, Sci Res Kino-Photo Inst, Moscow,  
11 pp

"Zhur Tekh Fiz" Vol XVIII, No 9

Established optimum number of tracks on multiple-  
track phonograms by mathematical theoretical anal-  
ysis of distortions occurring during photographic anal-  
recording. Gives basic characteristics of  
negatives and positives of a multiple-track phono-

32/49T53

USSR/Engineering (Contd)

Sep 48

gram. Establishes relation between the number of  
tracks and the distortion and density of the  
negatives and positive in multiple-track record-  
ings. Establishes optimum form of transverse-  
type multiple-track recording for the case of  
direct positive recordings and the negative-  
positive process. Submitted 17 Mar 48.

32/49T53

PARFENT'YEV, A. I.

USSR/Electronics - Recording, Magnetic

Aug 51

"Magnetic Sound Recording," A. I. Parfent'yev,  
Cand Tech Sci, Stalin Prize Winner

"Nauka i Zhizn" No 8, pp 30-33

Describes general theory of magnetic recording and discusses some of the uses of magnetic recorders. Includes photographs of the following magnetic recorders: the stationary MEZ-2, the portable Moskvich, the portable MEZ-3, the MAG-3M, the portable Dnepr-1, and the portable Dnepr-2 which has a radio receiver.

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PARFENT'YEV, A. I.

Feb. 52

USSR/physics - Acoustics

"Stereophonic Sound," A. I. Parfent'yev, Cand Tech Sci and Stalin Prize Winner  
Priroda, No. 2, pp 17-19

States that stereophonic transmission of music was first successfully studied in Russia by Prof I. Ye. Goren, Prof P. G. Tager, and Engineers B. N. Konoplev and M. Z. Vysotskiy.

*Also appeared in Nauka i Zhizn', No. 2, 1952*

263 T 107

PARFENT'EV, A. I.

Sound recording and its use. Moskva, Znaniye, 1953. 31 p.

PARFENT'YEV, A. I.

Fizicheskiye osnovy opticheskoy zapisi zvuka (Physical principles of the optical recording of sound) Moskva, Gos. Izd-vo tekhniko-teoreticheskoy lit., 1953. 332 p. illus., diagra., tables. "Literatura": p. (319)-328.

SO: N/5  
658.6  
.P2

PARFENT'YEV, A.I., kandidat tekhnicheskikh nauk, laureat Stalinskoy premii;  
TAGER, P.G., zasluzhennyi deyatel' nauki i tekhniki BSPER, laureat  
Stalinskoy premii, doktor tekhnicheskikh nauk, professor, redaktor;  
KADER, Ya.M., redaktor; MYASHNIKOVA, T.P., tekhnicheskikh redaktor

[Sound recording] Zapis' zvuka. Moskva, Voen. izd-vo Ministerstva  
oborony SSSR, 1954. 108 p. (MLRA 8:6)

(Sound--Recording and reproducing)

PARFENT'YEV, A. I.

VISOTSKIY, Mikhail Zinov'yevich; PARFENT'YEV, A. I., redaktor; YAKOBSON,  
A. Kh., redaktor; VORONTSOVA, Z. V., tekhnicheskii redaktor

[Technology of the sound recording of motion pictures] Tekhnologiya  
zvukozapisi kinofil'mov. Moskva, Gos. izd-vo "Iskusstvo," 1954. 211 p.  
(Motion pictures, Talking) (MLRA 7:8)  
(Sound--Recording and reproducing)

PARFENTYEV, A.I.

AID P - 944

Subject : USSR/Electricity  
Card 1/1 Pub. 27 - 13/25  
Authors : Parfentyev, A. I., Kand. of Tech. Sci., and Sheneman, G. A.  
Eng.  
Title : Measuring magnetic properties of core samples by the method  
of pulling them out of the coil  
Periodical : Elektrichestvo, 10, 66-68, 0 1954  
Abstract : The authors describe in detail the method of direct measurement of the residual magnetism by removing rapidly the magnetic core out of the measuring coil equipped with a ballistic galvanometer. Four diagrams.  
Institution : All-Union Scientific Research Institute for Motion Pictures and Photography  
Submitted : Mr 15, 1954

PARFENT'YEV, A. I.

FD-438

USSR/Electronics - Sound reproduction

Card 1/1 : Pub. 153 - 8/18

Author : Parfent'yev, A. I.

Title : Principal characteristics of the phonogram of a colored single-layer film

Periodical : Zhur. tekhn. fiz. 24, 667-676, Apr 1954

Abstract : Treats the comparative characteristics of photographic phonograms of black-white and colored films obtained on a colored single-layer plate. Establishes the influence of the spectral characteristics of incandescent lamps and photo-elements used for the sonic reproduction of phonograms. Shows that the main defect of the phonogram on colored film is the small coefficient modulation during reproduction of a phonogram by a cesium-oxide photoelement.

Institution : -

Submitted : January 30, 1951

~~PARFENT'YEV~~, Andrey Ivanovich; ISLANKINA, T.P., redaktor; ISLENT'YEVA,  
P.G., tekhnicheskiiy redaktor

[Innovations in motion-picture projection; broad screen and  
panoramic motion pictures] Novoe v tekhnike kino (shiroko-  
ekrannoe i panoramnoe kino) Moskva, Izd-vo "Znanie," 1955.  
31 p. (Vsesoiuznoe obshchestvo po rasprostraneniю politicheskikh  
i nauchnykh znaniy. Ser.4, no.30) (MLBA 8:10)  
(Motion pictures)



PARTENT'YEV, A.I.

Remarks on the theory of anti-phase optical sound transmission. Zhur.  
tekh. fiz. 25 no.5:861-863 My '55. (MIRA 8:7)  
(Sound--Recording and reproducing)

PARFENT'YEV, A.I.; DEMIKHOVSKIY, L.A.; MATVEYENKO, A.S.; TAGER, P.G.,  
professor; redaktor; SOVETOV, S.S., redaktor; MATISSEN, Z.M.,  
tekhnicheskii redaktor

[Sound recording in the staging of theatricals] Zvukozapis' v  
oforamlenii spektaklia. Pod red. P.G.Tagera. Moskva, Gos. izd-vo  
"Iskusstvo," 1956. 142 p. (MLRA 9:7)  
(Sound--Recording and reproducing)

PARFENT'YEV, A.I.

Relation between the form of the amplitude characteristic and the  
diapason of transmission. Trudy NIKFI no.7:162-166 '47. (MIRA 11:6)

1. Laboratoriya zvukozapisi Nauchno-issledovatel'skogo kino-foto-  
instituta, Moskva. (Sound--Recording and reproducing)

PARFENT'YEV, Andrey Ivanovich; YAKOBSON, A. Kh., red.; IVANOVA, L.A., tekhn.red.

[Magnetic recording in motion-picture engineering] Magnitnaya  
zapis' v kinotekhnike. Moskva, Gos.izd-vo "Iskusstvo," 1957. 277 p.  
(MIRA 10:12)

(Magnetic recorders and recording)

PARFENT'YEV, A.I.; KUSHNAREV, V.K.

A more exact definition of the concept of coercive force. Zhur.  
tekh.fiz. 27 no.10:2388-2391 0 '57. (MIRA 10:11)

1. Kinofotoinstitut. Moskva.  
(Magnetism--Terminology)

PARFENT'YEV, A. I.

Call Nr: AF 1154945

AUTHORS: Parfent'yev, A. I., Pusset, L. A.

TITLE: Physical Principles of Magnetic Sound Recording  
(Fizicheskiye osnovy magnitnoy zapisi zvuka)

PUB.DATA: Gosudarstvennoye izdatel'stvo tekhniko-teoreticheskoy  
literatury, Moscow, 1957, 323 pp., 7,000 copies

ORIG.AGENCY: None given

EDITORS: Ed.-in-Chief: Marsov, S. V.; Tech. Ed.: Akhlamov, S. N.;  
Reviewer: Secheyko, L. A.

PURPOSE: This monograph is intended for engineers and scientific  
workers engaged in the study of sound recording and  
the registration of vibratory processes by magnetic means.

Card 1/12

Call Nr: AF 1154945

Physical Principles of Magnetic Sound Recording (Cont.)

COVERAGE:

The book presents the physical principles of magnetic sound recording, filling in a current gap in that field and generalizes basic writings on the subject. The authors drew their data from hundreds of Russian and foreign sources on magnetic sound recording and from studies on the processes of magnetic recording and reproduction conducted in the USSR at the Motion Picture and Photograph Scientific-Research Institute (NIKFI) and at the All-Union Sound Recording Scientific Institute (VNAIZ). Parfent'yev, A. I. is responsible for the major part of the work, while Pusset, L. I., contributed 25% of the material, and Eliasberg, I. I., wrote paragraphs 55 and 56. There are 202 references, 97 of which are English, 50 USSR, 34 German, 12 French, 6 Polish, 2 Hungarian, 3 Japanese.

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Call Nr: AF 1154945

Physical Principles of Magnetic Sound Recording (Cont.)

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AVAILABLE: Library of Congress

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PARFENT'YEV, A.I.; POPOV, V.I.

[Sound on tape] Zvuk na kinolente. Moskva, Goskinoizdat, 1950.  
71 p. (MIRA 10:11)

(Sound--Recording and reproducing)

PARFENT'YEV A. I.

UPENIK, O.; PARFENT'YEV, A. I., kandidat tekhnicheskikh nauk, redaktor

[Recording sound on magnetic tape] Zapis' zvuka na magnitnoi plenke.  
Pod obshchey redaktsiei A. I. Parfent'eva. Moskva, Goskinoizdat,  
1951. 109 p. (MIRA 10:11)

(Magnetic recorders and recording)

(Sound--Recording and reproducing)

~~PARFENT'YEV~~ ~~Andrey Ivanovich~~; PUSSET, Lev Alekseyevich; MARSOV, S.V.,  
redaktor; AKHLAMOV, S.B., tekhnicheskiy redaktor.

[Physical principles of magnetic sound recording] Fizicheskie  
osnovy magnitnoi zapisi zvuka. Moskva, Gos.izd-vo tekhniko-teoret.  
lit-ry, 1957. 323 p. (MIRA 10:11)  
(Magnetic recorders and recording)

PARFENT'YEV A T

AUTHORS: Parfent'yev, A. I., and Kushnarev, V. K. 57-10-26/33  
 TITLE: A More Exact Definition of the Conception of Coercive Force  
 (Utochneniye ponyatiya koertsitivnoy sily).  
 PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol. 27, Nr 10, pp. 2388-2391 (USSR).

ABSTRACT: The authors show that a complete characteristic of the coercive properties of a magnetic material is given by three hysteresis loops. From these three we can obtain three different values for the coercive force. The three boundary loops of magnetic hysteresis are given here - induction, magnetization and residual induction or residual magnetization; once they are given for the ferromagnetic  $\gamma$ -ferrous oxide powder for band recordings and the other time they are given for the iron-cobalt-ferrite powder for the band recordings. The different values of  $B_C$ ,  $I_C$ ,  $r_C$  are dependent on the different magnetic

states of the sample at the moment of the passage of the curves  $B = f_1(H)$ ,  $I = f_2(H)$  and  $B_r = f_3(H)$  through zero.  $B$  - the induction,  $I$  - the magnetization,  $B_r$  - the residual induction,  $H$  - the magnetic field.  $B_C$  - the coercive force for induction,  $I_C$  - the coercive force for the magnetization,  $r_C$  - the coercive force for the residual mag-

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netization. The authors point out that the three magnetic states of the material which correspond to the values of the demagnetization field  $-B_C$ ,  $-H_C$  and  $-H_C$  are not sufficiently stabile. Therefore for the characterization of the material that value of coercive force can be used for the classification of the properties of the material which, from the point of view of the technical use of the material, suits best for this purpose.

There are 3 illustrations, 1 table and 7 Slavic references.

ASSOCIATION: Cinema-Photographic Institute, Moscow (Kinofotoinstitut. Moskva).

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AVAILABLE: Library of Congress.

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PARFENT'YEV, Andrey Ivanovich, kandidat tekhnicheskikh nauk; TAGER, P.G.,  
zasluzhennyy deystel' nauki i tekhniki RSFSR, doktor tekhnicheskikh  
nauk, professor, redaktor; KADER, Ya.M., redaktor izdatel'stva;  
MEZHERITSKAYA, N.P., tekhnicheskii redaktor

[Sound recording] Zapis' zvuka. Izd. 2-oe, dop. Moskva, Voen.  
izd-vo M-va obor. SSSR, 1957. 137 p. (MLRA 10:8)  
(Sound--Recording and reproducing)

PARFENT'YEV, F. A., ed.

Russia (1923- U.S.S.R.) Conversion of oil engines to the use of gas fuel. Moskva,  
Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1946. 251 p. (53-39928)

TJ770.R9



AUTHOR: Parfent'yev, G.

SOV-27-58-8-22/27

TITLE: In Michurin Trade School (V Michurinskom remeslennom)

PERIODICAL: Professional'no-tekhnicheskoye obrazovaniye, 1958, Nr 8,  
page 32 (USSR)

ABSTRACT: The article deals with the curriculum of the newly established Michurin Special Trade School Nr 52, Leningrad Oblast . The first graduates will be released in 1959.

ASSOCIATION: Michurinskoye spetsial'noye remeslennoye uchilishche No 52,  
Leningradskaya Oblast' (Michurin Special Trade School Nr  
52, Leningrad Oblast )

1. Industrial training--USSR

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PARFENT'YEV, G. N.

20552 PARFENT'YEV, G. N. K izucheniyu ustoychivosti kisloro etilovogo zfiira ugol'noy kisloty. Soobshch, 1. Trudy krasnodarsk. in-ta pishch. P om-sti, vyi. 4, 1948, s. 131-34

SO: LETCFIS ZHURNAL STATEY - Vol. 28, Moskve - 1949

*PARFENT'YEV, G.*

27-2-10/19

AUTHOR: Parfent'yev, G., Chief of the Schools Department of Leningrad Oblast Labor Reserves Administration

TITLE: The Conference of Workers in Mechanization Schools (Konferentsiya rabotnikov uchilishch mekhanizatsii)

PERIODICAL: Professional'no-Tekhnicheskoye Obrazovaniye, 1958, No 2 (153), p 20 (USSR)

ABSTRACT: A pedagogical conference of the Leningrad oblast' agricultural Mechanization school teachers recently took place. It was attended by Potapov, Deputy Head of the Pskov Oblast' Agricultural Labor Reserves Administration (Pskovskoye oblastnoye upravleniye sel'skogo khozyaystva); Zuyev, Chief Engineer of the Leningrad oblast' Agricultural Administration (Leningradskoye oblastnoye upravleniye sel'skogo khozyaystva); Yevstigneyev, Director of the Vil'dovitsy Sovkhoz; Poshivilin, Chief Engineer of the Lomonosov MTS and others.

The Conference dealt with the question of how to improve the quality of training of mechanics at agricultural mechanization schools. A.S.Kirilin, Head of the Labor Reserves oblast' Administration, (Oblastnoye upravleniye trudovyykh

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rezervov) who gave the main report, told the conference that during the last year the educational institutions had a certain success in improving the training quality, at mechanization schools. The schools own at present 234 tractors, 56 combines and 600 various agricultural machines. He also directed the attention of the conference to the still existing deficiencies in the preparation of agricultural specialists. At some schools the teaching staff does not have the necessary knowledge to teach the lessons; some subjects are not taught at all or only on a low level. Some school directors do not check the quality of the students preparation or the practical knowledge of the teaching staff. The result is that the students are given to the agricultural enterprises insufficiently prepared for practical work.

The members of the conference took note of the measures to be taken to improve the training quality of agricultural mechanics.

ASSOCIATION: Leningrad Oblast Labor Reserves Administration (Leningradskoye oblastnoye upravleniye trudovykh rezervov)

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